

**CLAIMS:**

1. An electrode for use in a region of a mass spectrometer where the electrode is subject to deposition of dielectric substances thereon,  
5 the electrode having a surface portion for providing an equipotential boundary of an electric field for influencing charged particles,  
wherein the surface portion is relatively rough to provide projections and cavities for reducing deposition of dielectric substances onto the surface portion.
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2. An electrode as claimed in claim 1 wherein the projections have a shape or shapes such that they reduce in size outwardly of the surface portion whereby they have at least one sloped side surface for providing an increased probability that the charged particles will strike such side surface at an angle  
15 thereto.
3. An electrode as claimed in claim 1 or 2 which is a rod.
- 20 4. An electrode as claimed in claim 1, 2 or 3 wherein the projections and cavities have a periodical or regular occurrence over the surface portion.
5. An electrode as claimed in claim 3 wherein the surface portion of the rod is screw-threaded, whereby thread crests along the rod provide the projections and thread roots along the rod provide the cavities.
- 25 6. An electrode as claimed in claim 1, 2 or 3 wherein the projections and cavities have a non-periodical or irregular occurrence over the surface portion.